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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,068	03/01/2002	Torsten Grust	SVL920010034US1	4243

24852 7590 09/01/2004

INTERNATIONAL BUSINESS MACHINES CORP  
IP LAW  
555 BAILEY AVENUE , J46/G4  
SAN JOSE, CA 95141

EXAMINER

NGUYEN, CINDY

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. ....	Applicant(s)	
	10/090,068	GRUST ET AL.	
	Examiner	Art Unit	
	Cindy Nguyen	2171	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓                      | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>03/01/02</u> ✓  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

This is in response to application filed on 03/01/02 in which claims 1-33 are presented for examination.

### **1. *Information Disclosure Statement***

The information disclosure statement filed on 03/01/02 is in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Because it has been placed in the application file, and the information referred to therein has been considered as to the merits.

### **2. *Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**3. Claims 1-3, 6, 9-11, 14-16, 19-21, 24-26 and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Chinnici et al. (U.S 2002/0188616) (Chinnici).**

Regarding claims 1, 9, 24 Chinnici discloses: A method of managing a relational database comprising:

a. receiving queries in a query language (the client submits these queries in an SQL format to a database engine for processing, page 3, 0037, Chinnici);

Art Unit: 2171

b. representing the queries in accordance with a declarative language paradigm (a rowset is a database structure containing information that represents a row or multiple row of a table of the database, page 3, 0038-0039, Chinnici);

c. converting the queries represented in a declarative language paradigm to an imperative language queries (the application server then converts the SQL protocol command or rowset changes to a programming language, page 3, 0038-0039, Chinnici); and

d. executing the imperative language (execute the programming language, page 3, 0038-0039, Chinnici).

Regarding claim 6, Chinnici discloses: A method of managing a relational database comprising:

a. receiving queries in a query language (the client submits these queries in an SQL format to a database engine for processing, page 3, 0037, Chinnici);

b. converting the query language to an imperative language representation of a declarative language representation of the queries in accordance with a declarative language paradigm (the application server then converts the SQL protocol command or rowset changes to a programming language, page 3, 0038-0039, Chinnici); and

c. executing the imperative language queries (executes the programming language, page 3, 0038-0039, Chinnici).

Regarding claim 14, Chinnici discloses: A database management system adapted to process queries in a pervasive computing environment, said pervasive computing environment comprising at least one client (14, fig. 1, Chinnici) adapted to interact with

Art Unit: 2171

a server (20, fig. 1) over connection services, said at least one client controlled and configured to

a. receive queries in a query language (the client submits these queries in an SQL format to a database engine for processing, page 3, 0037, Chinnici);

b. represent the queries in accordance with a declarative language paradigm (a rowset is a database structure containing information that represents a row or multiple row of a table of the database, page 3, 0038-0039, Chinnici);

c. convert the queries represented in a declarative language paradigm to an imperative language (the application server then converts the SQL protocol command or rowset changes to a programming language, page 3, 0038-0039, Chinnici); and

d. execute the imperative language queries (execute the programming language, page 3, 0038-0039, Chinnici).

As per claim 19, all the limitations of these claims have been noted in the rejection of claim 6 and 14. It is therefore rejected as set forth above.

As per claims 24 and 29, it is the program product of claim 1 and 9, all the limitations of these claims have been noted in the rejection of claim 6 and 14. It is therefore rejected as set forth above.

Regarding claims 2, 10, 15, 20, 25, 30 all the limitations of these claims have been noted in the rejection of claims 1, 9, 14, 19, 24 and 29 above, respectively. In addition, Chinnici discloses: comprising converting the query language to an intermediate declarative representative (page 6, 0054, Chinnici), and thereafter converting the query to an imperative language representation of the queries and executing the imperative language queries (page 7, 0063, Chinnici).

Regarding claims 3, 11, 16, 21, 26, 31 all the limitations of these claims have been noted in the rejection of claims 1, 9, 14, 19, 24 and 29 above, respectively. In addition, Chinnici discloses: comprising converting the query language to an imperative language representation of the declarative language and executing the imperative language queries (page 3, 0038, Chinnici).

**4. *Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 4, 7, 12, 17, 22, 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinnici et al. (U.S 2002/0188616) (Chinnici) in view of Steele JR. et al. (U.S 2001/0056420) (Steele).**

Regarding claims 4, 7, 12, 17, 22, 27 and 32, all the limitations of these claims have been noted in the rejection of claim 1, 6, 9, 14, 19, 24 and 29 above, respectively. However, Chinnici didn't disclose: wherein the declarative language is chosen from the group consisting of ML, LISP, and HASKELL. On the other hand, Steele discloses: ML, LISP and HASKELL . Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the ML, LISP, HASKELL in the system of Chinnici as taught by Steele. The motivation being to enable system uses declarative language (they can be ML, LISP, HASKELL or a like) due to programming

Art Unit: 2171

conventions for converting database record to correspond to the query request as modified by the client computer system.

**6. Claims 5, 8, 13, 18, 23, 28 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chinnici et al. (U.S 2002/0188616) (Chinnici) in view of Agesen (U.S 6711672).**

Regarding claims 5, 8, 13, 18, 23, 28 and 33 all the limitations of this claim have been noted in the rejection of claims 1, 6, 9, 14, 19, 24 and 29 above, respectively. However, Chinnici didn't disclose: wherein the imperative language is chosen from the group consisting of C, C++, Java, Modula2, and SmallTalk. On the other hand, Agesen discloses: wherein the imperative language is chosen from the group consisting of C, C++, Java, Modula2, and SmallTalk (col. 2, lines 34-49, Agesen). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the C, C++, Java, Modula2, and SmallTalk in the system of Chinnici as taught by Agesen. The motivation being to enable system uses high level programming languages due to programming conventions for converting database record to correspond to the query request as modified by the client computer system.

## **7. *Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can normally be reached on M-F: 8:00-5:00.

Art Unit: 2171

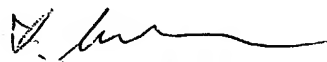
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Cindy Nguyen

August 31, 2004



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